

In the Specification:

Replace the text of the section of the specification entitled, “Brief Description of the Drawings” with the following:

Fig. 1 is a schematic of a system architecture used to perform the methods and system consistent with the present invention;

Fig. 2 is a flow chart of an overall process flow for a tier I flow of an application of creating a sketch-based eggcrate substructure for manufacturing composite parts according to one embodiment consistent with the present invention;

Fig. 3 is a flow chart of steps involved in launching and running an application as a batch job from a web browser according to one embodiment consistent with the methods and system of the present invention;

Fig. 4 is a screen shot of a Web Launch Start Page for a computer software program for creating a sketch-based eggcrate substructure for manufacturing composite parts according to one embodiment consistent with the present invention;

Fig. 5 depicts a screen shot of a Web Launch Page for selecting a CATIA input model of the computer software program for creating a sketch-based eggcrate substructure for manufacturing composite parts according to one embodiment consistent with the present invention;

Fig. 6 is a screen shot of a Form Index and Title Block Inputs form of the computer software program for creating a sketch-based eggcrate substructure for manufacturing composite parts according to one embodiment consistent with the present invention;

Fig. 7 is a screen shot of the Geometry Input Specs 1 of the computer software program for creating a sketch-based eggcrate substructure for manufacturing composite parts according to one embodiment consistent with the present invention;

Fig. 8 is a screen shot of the Geometry Input Specs 3 of the computer software program for creating a sketch-based eggcrate substructure for manufacturing composite parts according to one embodiment consistent with the present invention;

Fig. 9 is a screen shot of the Geometry Input Specs 3 of the computer software program for creating a sketch-based eggcrate substructure for manufacturing composite parts according to one embodiment consistent with the present invention;

Fig. 10A (Top CRV Creation Inputs), Fig. 10B (Interlock Slot Inputs), Fig. 10C(Air circulation Notch Inputs), Fig. 10D (Diagonal Inputs), Fig. 10E (Lightening Hole Inputs), and

Fig. 10F (Output Options) are screen shots of various input specs of the computer software program for creating a sketch-based eggcrate substructure for manufacturing composite parts according to one embodiment consistent with the present invention;

Fig. 11 is a plan of an example Q-Periphery three-dimensional input sketch showing the chained inside line segments according to one embodiment consistent with the present invention;

Fig. 12 is a elevation of an example of how the Q-periphery three-dimensional input sketch chained inside line segments need not lie on the xy plane according to one embodiment consistent with the present invention;

Fig. 13A (top view, default overlap settings) and Fig. 13B (top view, 50% overlap applied) are examples of resulting compound butt joints for different overlap values for a solved Q-Periphery Sketch according to one embodiment consistent with the present invention;

Fig. 14 is an error message presented by the program if the batch job fails according to one embodiment consistent with the present invention;

Fig. 15 is a perspective of an exemplary input model according to one embodiment consistent with the present invention;

Fig. 16A (perspective of a three-dimensional space geometry) and Fig. 16B (two-dimensional draw output) are exemplary views of an output model for review by the user according to one embodiment consistent with the present invention;

Fig. 17 is a plan of an exemplary eggcrate substructure showing how cells are formed by periphery and internal supports according to one embodiment consistent with the present invention;

Fig. 18 is a table of exemplary views of the three different conditions possible for a Snap-to Diagonal start and end snap-to points according to one embodiment consistent with the present invention;

Fig. 19 is perspective of an exemplary output model table showing the various support types, diagonals and bottom stiffeners that can be generated from an input sketch according to one embodiment consistent with the present invention; and

Fig. 20A and through Fig. 20B 20N are tables views of various exemplary input and output models showing three-dimensional space geometry according to one embodiment consistent with the present invention.

Corresponding reference characters indicate corresponding parts throughout the several views of the drawings.

In the Drawings:

Replace the originally filed drawing sheets 25 and 26 with the enclosed replacement drawing sheets 25 through 31. No new matter has been added by this amendment. The originally filed drawings have been redrawn to permit reproduction.